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approach

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Boy Scouts in Bermuda

The stories of mysterious happenings, disappearances, and sightings in the Bermuda Triangle have been around since man first sailed those waters. What is it about this collection of atolls, sandy islands and turquoise water that lures the unsuspecting to an unknown fate?

UFOs, lost civilizations, and supernatural forces have all been blamed. They all sound like variations on the "It just blew" theory to me. It's much easier and certainly more interesting to attribute losses to unknown forces.

Besides, it sells books and really bad B movies.

During many exercises from Florida to Puerto Rico, I have probed much of the dreaded triangle. My instruments have all worked properly and no strange visions have crossed my path. I saw sunny skies, tiny islands and glassy blue water in every direction. It was hardly ominous.

Although supermarket tabloids always exaggerate the number of disappearances, there actually have been many ships and aircraft lost in this area. So how would I explain those missing ships and lost squadrons? Lack of preparation would be my answer. The waters (and skies) off the coast of Florida offer the same dangers as any other secluded, uninhabited hostile environment: unpredictable weather, minimal rescue services, no fast food.

The unexpected is not the unexplained or the unnatural. When you prepare for your flight you are in a better position to deal with the unexpected. You can never be ready for every possibility, but the prepared aviator can more easily deal with malfunctioning nav gear, mechanical problems or bad weather.

This month we feature one adventure in the triangle. You make the call: mysterious forces, UFOs or unprepared aircrew?

Don't sail, fly, walk or stumble into your own private Bermuda Triangle. Take a tip from the Boy Scouts — "Be Prepared."

Lt. Steve Halsted




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On the cover: AH-1T of HMM-365 (Photo by Rick Mullen)

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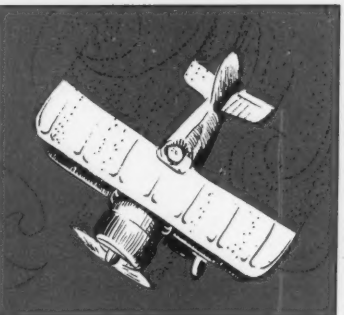
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How I Survived the Great Brownout of 1991

Story and Photos by Maj. John Stollery, Jr., USMCR



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We were scheduled to lift a blocking force of anti-armor equipment to protect the right flank of the 1st and 2nd Marine Divisions, whose main thrust was to take Kuwait City. The plan called for a daylight flight—one route in, same route out—and stay to the right. The launch time was not fixed, but was planned to be between 1000 and 1200.

Through the morning and early afternoon, we waited for the white star cluster that would signal the beginning of the assault.

At about 1530 we saw the white-star pop-up flare and the fun began. We hustled to get the rest of the MOPP* gear on (we had put the chemical jump suits on in the morning) and helped each other with our AR-5 masks and filter assemblies. With the AR-5, normal communication becomes a major chore: we had to shout.

We soon realized we weren't going anywhere, so we sat in silence with our labored breathing and the hum of the blowers of the AR-5s. We quickly learned to conserve our words for only the important things.

*mission oriented protective posture

The sun was nearly below the horizon when we saw a HUM-VEE going from aircraft to aircraft. As it did, the crews got out and took off their AR-5s. When the news filtered to us, we climbed out, stretched and removed our masks. The word from the front was, "There was no chemical threat".

Ten minutes after we received the first message, the same messenger began scurrying from helo to helo instructing us to mount up; the launch was in eight minutes.

We strapped in without the AR-5s but with the ANVIS-6 NVGs mounted and ready. In front of us, the forward helos were turning and burning. The radios came alive with normal chatter. The Huey with the mission commander lifted off with a Cobra, churning up a sizable cloud of fine dust and sand.

The rotor wash of the herd of departing helicopters, all at max gross weight, was kicking up the fine dust and sand of the desert. I thought, "That dust will be the first real threat for the mission."

Over the radio, the mission commander instructed the

flights to take off with one-minute separation. One minute was not enough time for the huge dust cloud to dissipate. As the divisions of CH-46s lifted off with their escorts on their flanks, we watched, fully expecting to see a midair right in front of us. A few came close.

Although we didn't learn about it until we had recovered, one Phrog crew did experience a total brownout. As they tried to land, they rolled up the aircraft; miraculously, no one was seriously hurt.

When it was our turn to lift, I pulled in power and quickly got above my own dust and stayed close on the heels of the three Phrogs in my division. The left, or western, half of my field of view was just a broken IFR world. I had to drift back a little to go around the dust cloud, and then take off to the north. I kept my playmates in the right half of my field. I stayed in ground effect as we built up airspeed to gain altitude. I felt a sudden rush of relief to know that we survived the takeoff.

We quickly approached the Saudi-Kuwait border and the Iraqis' defensive lines were faintly visible. With the sun well below the horizon, we flipped down the ANVIS-6 and saw the line with more detail. Well ahead of us, the oil-well fires burned furiously, making it hard for us to see each other. From my spot as Dash 4, I could clearly see my lead, but only faintly see the division in front of us.

The radio chatter between escorts, transports and the mission commander was horrendous. I felt safe tucked in Dash last of my division, but the chatter on the radio made my confidence wane.

Apparently, the flight leader and seven Phrogs ahead of me were also affected by the unusual amount of radio chatter and the constant questions about the location of others. The flight leader contacted the mission commander and clearly told him that if order did not prevail, he was going to turn his flight around and abort the mission. The mission commander concurred but the confusion continued. After five minutes, the flight leader informed the mission commander he was turning his flight around. We made a wide, left turn and began our RTB. Behind us, the other flight leaders saw the danger in continuing and began to turn their flights around.

As we crossed the Saudi border, I saw that getting us all safely on deck wouldn't be a simple task. Our flight leader's division was not returning to

the same base as my division, so he kissed our division off and headed southeast.

At Lonesome Dove, our city in the sand, the landing pattern could best be described as a three-ring circus. There were three landing-parking areas set up by aircraft type: CH-53s, CH-46s and skids (Hueys and Cobras). Each landing spot doubled as a hot refuel spot, so the "runway" got clobbered real quick. The first three aircraft in my division landed and I stayed in the pattern, which was a big race-track around the perimeter of the base. The tower controller was getting busier by the second as returning flights checked in and wanted fuel. My own fuel was getting low, but I wasn't worried just then.

With entry from any point into the pattern, the term "see and avoid" became very near and dear. Other helicopters were the real threat and the sky was full of them.

One of the drawbacks of the NVG is that red light shows up so well; you can misjudge its distance so easily. A red position light or strobe does not appear significantly different from just inside a mile to between two and three miles. As we circled the pattern, my copilot twice told me to take evasive action to avoid aircraft approaching from the abeam position.

After two or three times around, it was obvious that things were getting worse. Our billeting area was on the northeast corner of the camp. We had originally landed there on our arrival at Lonesome Dove, so I was familiar with the spot. We told the tower of our intentions, and the controller quickly rogered because it meant one less aircraft he had to keep track of.

I shot a no-hover approach to a point about 70 yards from the berm surrounding the billeting area. I was happy to be on deck and in one piece.

The confusion on this mission was part of the "fog of war" because things were happening so fast. People were making—or not making—decisions, and we had to modify the original plan to fit the tactical situation.

With so many helicopters so close together, a midair was a distinct possibility. Vigilance through fear and good crew coordination kept a midair from happening. Looking back, I doubt whether any enemy soldier ever had my aircraft in his sights, but I feel justified in keeping my imminent danger pay. ◀

Maj. Stollery is the XO for MAG 46 Det A at NAS Norfolk.



Can I Have the Keys Again, Skipper?

By Lt. Jim Fleming



Finally, a good-deal hop. There hadn't been too many of these in the squadron because of a decrease in funding. All our energies had been funneled toward workups. The flight was your basic out-and-in to drop off two NFOs at an Air Force base. Although I had been in the squadron for nine months and had gone through an entire set of workups, I was still the junior pilot. I had not obtained my aircraft commander designation and I was anxious to show the skipper that he could trust me on the road with one of his birds.

We launched on time and the flight went as smooth as silk. I made a visual straight-in instead of a break because of all the light civilian traffic in the area. During the rollout, I discovered that I had lost my nose-wheel steering. I didn't think it was too serious as I used differential braking and engine thrust to taxi to the ramp.

After a quick breakfast and phone call to base, we manned up. Not until we started taxiing did I remember that we had no nose-wheel steering. I knew that we needed the plane back home for flights later in the day. I also realized that the Air Force maintenance personnel could not work on our aircraft.

Without hesitating, I told my junior NFO in the right seat to get us taxi clearance. With a long Air Force runway, I was confident that I could keep the plane under control until the rudder became effective. I advanced the throttles slowly to military and handled the takeoff without a problem.

After an uneventful flight home, I was walking across the flightline when I noticed the skipper getting into his airplane. I went over feeling pretty good that I had gotten a broken bird back home, but he didn't feel the same way. He saw it as taking a down jet flying. He also wasn't happy that I hadn't called back home about the steering problem.

While I felt the need to show that I could get the job done, there is still a time and place where I should have sought advice from those with more experience. With more than 5,000 hours, and much of that in test-pilot school, the skipper could have told me over the phone how to handle the takeoff. Also, he has responsibility for these airplanes and wants to be kept informed about their status. I hope he won't have to think twice before giving me the keys to an S-3 again. ◀

Lt. Fleming is an S-3 pilot with VS-38.

I Got Mine at Cubi - ALMOST

By Lt. Mark Mohr

Flight instructors always told us about the basic principles, which would keep us out of trouble if we made them second nature. Most of us thought, "OK, that seems easy enough; let's get this fam over with." My story is an example of the consequences of not following these simple rules.

After two weeks of deployment, my crew had been picked to head a 10-day det to NAS Cubi Pt. Twist my arm and drag me screaming to the aircraft! The chance to get some good flight time (as well as liberty) had the whole crew ready to "get out of Dodge" pronto.

Only one fact tugged at the back of my mind. I hadn't flown into this mountainous terrain in over a year, and never as a plane commander. Nothing that reviewing the trip book, IFR Supplement, AP, and receiving a good brief wouldn't cure right? Wrong.

For those who haven't had the pleasure of flying into Cubi, it sits at the base of a 3,000-foot mountain, next to a large bay. The field is also bordered on three sides by mountains, the largest being 4,000 feet high. The approaches

either take you over a mountain to the field, or over the water and turn you toward the field just in front of the 4,000-foot mountain. The flight went fine until about an hour north of our destination. We ran into moderate to severe turbulence with a great deal of St. Elmo's fire and a decrease in radio comms to practically NORDO.

Then we picked up the GCA controllers, who told us, "In case of lost comms during approach to runway 07, do not proceed north of the 240-degree radial. Turn right to a heading of 090 and climb immediately to 9,000 feet." The purpose of these directions is to avert disaster. Because of the mountains surrounding runway 07, the GCA azimuth is more narrow than usual. If an aircraft was on a base leg to 07 and continued north without turning to the field, it would run straight into the 4,000 foot mountain.

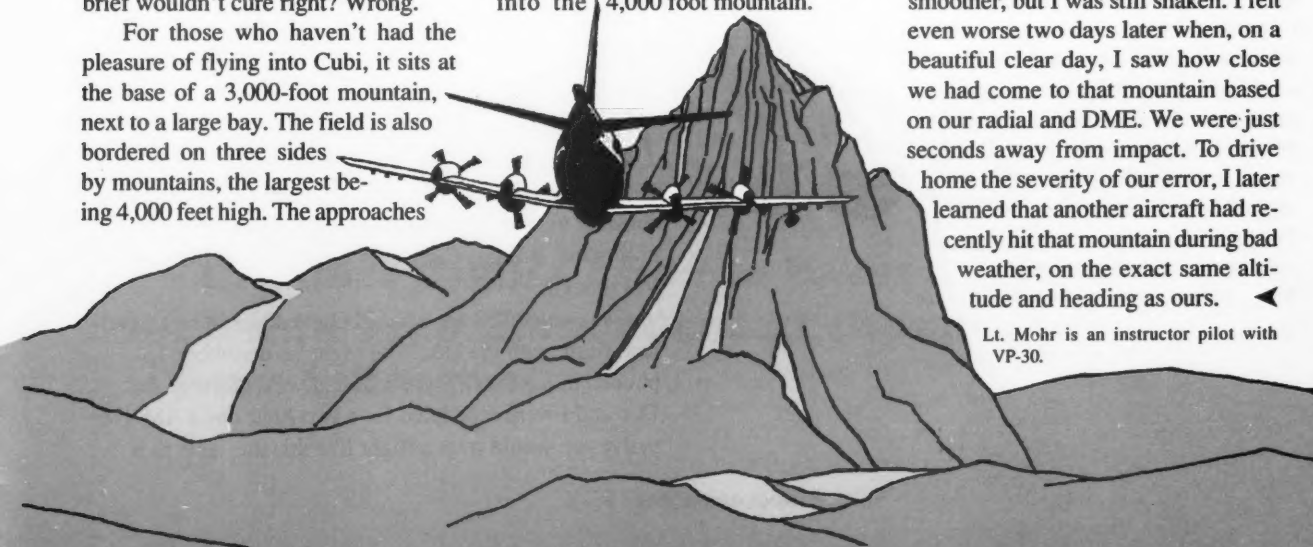
"How does a P-3 climb immediately anywhere?" I thought as I acknowledged the instructions. I wanted to finish this approach and get out of this miserable weather. We were on a base leg vector at 1,200 feet, heading right towards the 4,000-foot mountain when we went lost comm.

My copilot and I immediately started to punch buttons, change freqs, anything to regain comms. After about 10 seconds, we checked our position. We were already well north of the 240 radial we were told not to pass. We wrapped the aircraft up and climbed with every bit of shaft horsepower we could squeeze out of our bird.

About halfway through the maneuver, we regained comms. The controller was yelling (no, screaming!) to climb.

Luckily, the next approach went smoother, but I was still shaken. I felt even worse two days later when, on a beautiful clear day, I saw how close we had come to that mountain based on our radial and DME. We were just seconds away from impact. To drive home the severity of our error, I later learned that another aircraft had recently hit that mountain during bad weather, on the exact same altitude and heading as ours. ◀

Lt. Mohr is an instructor pilot with VP-30.





PH2 Dave Loveall

What's Unplugged, Doc?

By Lt. Jeff Bruner

As an instructor pilot in the East-Coast FRS for the SH-60B, I didn't often get a flight where I could relax and enjoy myself. On most flights I had to be on a constant vigil to keep the student at the controls from killing me. But this flight was suppose to be different ... so I thought.

I was scheduled for what I believed would be a good-deal flight with the Doc. The night before, when I phoned in for the flight schedule, I was informed that Doc and I were scheduled for a two-hour day FAM. Normally you would treat a flight like this the same as a

flight with a mid-stage FAM student. That is, a flight with a copilot who knows just enough to be dangerous. But I thought this flight would be different. Our Doc had close to 1,000 hours in H-2s. True, an H-2 is not an SH-60, but 1,000 hours in helicopters is 1,000 hours in helicopters.

We briefed at 1100 and launched at 1230. The day was beautiful, a perfect north Florida spring day – not too hot, scattered clouds at about 10,000 feet and a gentle breeze out of the south. We launched and joined the local pattern to let Doc get acquainted with the aircraft. After about an hour he felt pretty comfortable with his air work, and we decided to shoot a couple of practice GCAs.

Let me veer away from my story for a moment. Doc normally flies with the H-2 squadron down the street. This is mainly because that's the helicopter he flew before he became a flight surgeon. Because most of his time is in H-2s, his flight helmet is configured for the H-2 ICS jack. To make his helmet compatible with the SH-60's ICS jack, Doc had the paraloft make him a three-foot cord with an adaptor on either end. One side plugged into the H-2 ICS jack on his helmet and the other end plugged into the ICS jack on our aircraft. Unfortunately, the connections weren't very secure and came unplugged whenever he moved his head.

We joined the local GCA pattern and made arrangements to shoot two approaches each. Doc would shoot the first and third, and I would shoot the second and fourth. Everything went fine during the first three approaches and we were both getting a little relaxed. I decided to fly the fourth approach with the SAS (stabilized augmentation system) off to practice my air work and scan. As an instructor I don't get much first-pilot time, so I have to practice when I can.

After Doc's second approach, I briefed him on how to turn the SAS/Auto-Pilot system on and off, and told him

that I would fly the full approach SAS off. I asked him to re-engage the SAS once I had finished the approach and was level over the runway. I took the controls, secured the SAS and began the downwind leg. When we rolled onto final I switched to an inside-only scan while Doc watched outside to keep us clear. I must say I flew a beautiful approach, on glideslope all the way.

As we crossed the numbers I leveled off at 40 feet. Approach control asked us to switch to tower to join the local pattern. I rogered and asked Doc to engage the SAS and switch me up tower. He didn't answer. Approach called again requesting I switch frequencies. Again I rogered and asked Doc to make the change and turn on my SAS. When I still didn't get any response I glanced over at Doc to see what was up. He was looking out the side window at the helos in the parallel pattern. But what jumped out at me was his ICS pig-tail hanging off his helmet unplugged.

Now, flying SAS-off is no real problem. But I was sitting in the left seat and that required my right hand to switch radios. I yelled at Doc without effect. Approach called back and once again told me to switch up tower. I started a climb, reached over and switched the radio. As I switched the radio the helo rolled into a 15-degree to 20-degree bank which I corrected, but it served to get Doc's attention. He came back into the cockpit but still was not aware he was NORDO.

I called tower, apologized and turned downwind. Once I was established downwind I managed to signal Doc that he was unplugged.

We were never in any real danger. At most, tower would have given us a scolding. Doc's cord was identified as a potential hazard. He is now forbidden from using his H-2 helmet in our SH-60s and is going to have to use a shop spare from now on. And I am not going to practice flying SAS off unless I am positive my copilot is not only in the cockpit physically, but mentally as well. ◀

Lt. Bruner flew with HSL-40 as an IP. He is currently assigned to HSL-51.

On most flights I had to be on a constant vigil to keep the student at the controls from killing me.

How We Cheated the Bermuda Triangle

By Cdr. Tom Parker

Bermuda

Florida

Lt. Mike Sive

Puerto Rico

approach/May 1992

Battle-group phase. Blue water ops, 250 miles south of Bermuda, 650 miles north of NAS Roosevelt Roads. No divert. My air wing will execute the most demanding anti-air warfare mission of the workups. The ship will be in complete EMCON. The fleet commander is at sea and watching closely. Max pressure on everyone, especially the primary AAW players—Hummers and fighters.

I'm the E-2C mission commander on the day's first launch. An early brief, early launch, too much coffee, lots of tension. Three hours later and the mission looks like a complete success. Bogeys detected and engaged by CAP at max range, Link-11 and command-and-control a model for future exercises. We confidently head back toward mother to run an EMCON case-one recovery when we discover that the real mission of the day is just beginning.

It begins with a call from Strike. The carrier has broken EMCON to report a missing F-14. Aircraft 203 has not been heard from since it launched an hour ago. Could we locate it? Postflight reconstruction showed that the aircraft had launched with a marginal system and subsequently had a catastrophic system failure. The Tomcat had no IFF, mode IV, radar, INS or TACAN, and one weak UHF radio. I called 203 on guard and heard a weak response on button one.

"203, say location," I call.

"Unknown," they reply.

"Say estimated location"

"Unknown."

"Say heading."

"330."

I try once more. "Say how long on current heading."

"Estimate 30 miles," the F-14 crewman answers. "We were southeast of mother proceeding inbound to hold overhead until recovery. I think we overshot and are now someplace northwest of her position. Request a vector to mother and a tanker."

"203, say state."

"11,000 pounds."

"OK," I think, "No problem. This one should be simple. We change our station to the north of the carrier to close the communications distance and radar-flood the most likely location of 203. The Tomcat doesn't have a fuel problem yet, but we don't have much room to fool around."

In spite of my initial optimism, there are no air contacts north of the carrier where 203 thinks he is. No other con-

tacts in the quadrant match his profile. Where exactly is he? "203, squawk ident."

"I believe we're unable," he says. "IFF was reported inop off the cat."

Bad news, no IFF, no radar contacts where 203 should be. He's either out of radar range or he's not north of mother after all.

I call again. "203, request a long count for ADF."

No luck on the long count, either, but I suspect my ADF gear isn't working. The ship has no ADF capability, either. The old URD-4 ADF has long since gone. We call an airborne S-3 and a second E-2C to help triangulate another long count from the Tomcat. No luck, either. The signal is probably too weak. Better do something.

"203, I think you're north of me. Recommend vector south in five miles for bingo to Rosie if we can't find you."

"I'm headed south now," the F-14 replies.

Not much else to do. My bag of tricks is just about empty. I don't have radar or IFF contact, we're unable to get an UHF/DF cut because of range or defective equipment. Unusual. I've followed the normal lost-plane procedures and I've quickly run out of ideas. My pilot suggests using air-to-air TACAN. It won't give a bearing, but it will give DME. Could be helpful. Besides, it's better than nothing.

"203, let's go air-to-air on the TACAN. You go 29; we'll go 92."

Our luck's improving. We shortly get a lock-up at more than 220 nm, beyond our detection range. (I didn't think TACAN could go that far!) The range is decreasing. He's coming toward me.

"203, say state, course, and altitude."

"State 8.0, course 130, climbing through angels 18 for max endurance profile."

He won't make Rosie. I figure he's more than 750 miles away. We'd better find him and quick. At least we know he's north of the ship and headed generally south. Still no radar contact.

About this time, the ship breaks EMCON again to give us a news flash: an F-14 is missing. Yes, we know. What do they think we've been doing for the past half-hour? No, we don't understand. There's *another* F-14 (same squadron) that's missing, presumed lost and NORDO.

My lucky day. You usually see one of these situations a

The ship breaks EMCON again to give us a news flash: an F-14 is missing. Yes, we know. What do they think we've been doing for the past half-hour? No, we don't understand. There's *another* F-14 that's missing, presumed lost and NORDO.



year, and now two in one day. It's time to quit playing the EMCON game and find these guys before they go swimming or worse.

We recommend that the ship bring on its TACAN and come out of EMCON, which it does immediately. We also recommend that our accompanying Aegis cruiser bring up its spy radar to help in the search effort.

We immediately locate the second F-14, which is well east of mother, headed east, and almost out of radar and comm range. Its INS and radar have also failed. The aircrew's transmissions are broken but the guard receiver's still working. We vector the F-14 west and toward a tanker and a rendezvous.

We discovered later that the crew was monitoring button one and got an immediate sweet lock when the ship's TACAN came up.

Still no luck with 203, though. We finally detect a non-squawking air contact coming down from the north at maximum detection range, which matches the air-to-air TACAN reading.

"203, say heading."

"180."

OK, that matches.

"203, say altitude and airspeed."

"Climbing, now passing 23,000 feet; airspeed 300 knots."

"Radar contact. Vector 140 for mother at 245 nm, tanker en route. Say state."

"5,000 pounds."

A near thing.

Well, a happy ending. Two uneventful tanker joinups

and case-one landings, several red faces during the debrief, and a couple of extremely sincere thank-yous from the two aircrews. The Bermuda Triangle was cheated once again.

Blue water ops are always dangerous. Also, there's nothing spooky about the Bermuda Triangle, only tremendous distance, few nav aids or divert fields, and lots of water.

It's best not to rush your luck with marginal aircraft, regardless of operational pressures. Maybe those F-14s shouldn't have launched under those conditions. That aphorism bears repeating: there's nothing we do in training that's worth killing yourself over.

If you're lost and in trouble, confess; and sooner is always better than later. (I give you my solemn promise that we'll only razz you about it for the rest of your life if you do something stupid.) If the crew 203 had waited another 10 minutes they would have been out of comm range, and I don't think we'd ever hear from either of those guys again. The headlines would have read "Bermuda Triangle Snares New Victims."

When you exhaust your standard procedures, don't hesitate to try something else. I'd never heard of using air-to-air TACAN in a lost-aircraft drill, but it made all the difference in this case.

Everybody should familiarize themselves with the local op area before launch. Postflight reconstruction showed that 203 was within 50-75 nm of NAS Bermuda. Neither our Hummer crew, the F-14 crew, nor the CIC crews in the several ships that were monitoring the event even considered recommending using Bermuda's TACAN. ◀

Cdr. Parker is the P-XO for VAW-124.

"Suspend! Suspend on Cat 1!"

By Lt. Mark Sharp and Lt. Ken McKown

On deck for the third time that night during a SOCAL CQ. We were a qual after being on the beach for a year. Our skills were slowly returning. Our ship had just returned from a Westpac deployment and, as expected, the deck was fast. All night, the approaches were smooth and the handlers were quick. Landing onboard a moving airfield was fun again.

Back on the cat for "just one more" launch into the moonless night. We spread the wings, stowed the gust lock and checked the wings. We selected after-fan on the TF-34s and brought all the tapes and gauges to their full potential.

"Tapes and gauges check good. No caution lights. Wiping out the controls," I said as I deflected the control surfaces.

Everything looked and felt great except for a barely discernable rubbing.

"No," I thought, "I'd better not take any chances."

With the turbofans at max thrust and the aircraft in tension, I wiped out the controls again. Like before, good deflections, but now the binding was more pronounced, with an abrupt decrease in backstick movement.

"Are you holding

the stick?" I asked my COTAC.

"No, I'm clear," he replied.

The shooter was impatiently waiting for our lights to come on, signaling we were ready to launch.

"Suspend," I called.

The COTAC quickly came up on the radio, calling "Suspend, suspend on cat 1. Suspend on cat 1."

No answer. Nothing changed. The shooter kept waving his green wand, ready to touch the deck. Another wipeout gave a worse situation. The control stick was now jammed full nose down. In a few seconds, we had a developing nightmare: on the cat, at night, in tension, flight controls jammed, and about to launch.

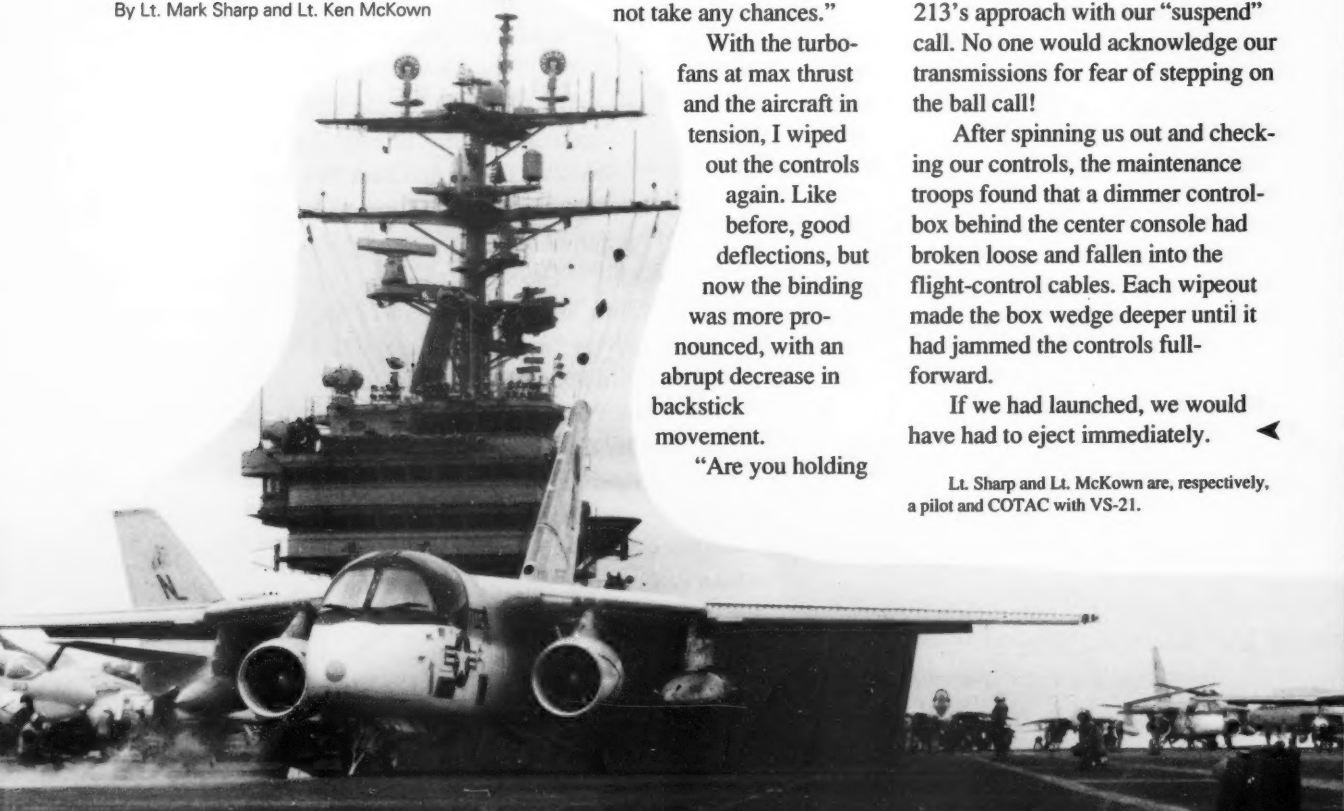
Just as we were thinking about riding the rails into a pitch-black night, a comforting and familiar voice radioed, "All right, settle down, 700. You're suspended. 213 was on the ball."

It was ironic that we clobbered 213's approach with our "suspend" call. No one would acknowledge our transmissions for fear of stepping on the ball call!

After spinning us out and checking our controls, the maintenance troops found that a dimmer control-box behind the center console had broken loose and fallen into the flight-control cables. Each wipeout made the box wedge deeper until it had jammed the controls full-forward.

If we had launched, we would have had to eject immediately. ◀

Lt. Sharp and Lt. McKown are, respectively, a pilot and COTAC with VS-21.



Nomex is a trade name for the material developed by Du Pont used in the manufacture of protective clothing for aircrews. The fabric is made from high-temperature-resistant aromatic polyamide fiber with the generic name of Aramid. The correct designation is Nomex Aramid fiber. The fire-resistant qualities of the fabric are not derived from a treatment applied to the cloth, but rather are the result of the molecular structure of the material itself that prevents it from melting.

Early Nomex

The early Nomex fabrics were made from continuous-filament fibers—unending fibers which were woven into fabric used for anti-G suits, and other applications where strength, in addition to fire resistance, was an all-important factor. Such fabric, however, lacked the qualities needed for a soft and comfortable material to be used in garments worn every day.

Nomex Now

The continuous filament was replaced by short fibers which were chopped up and made into yarn in a process much the same as that employed on an old-fashioned spinning wheel. The material made from the resultant Nomex threads is not only highly resistant to fire and heat, but is resilient, lightweight, and comfortable to wear. It also retains the required strength.

The standard items of apparel made from this fabric are flight suits, jackets, shirts, trousers, and gloves. This flight gear should be reserved for actual flight operations and never worn for general maintenance activities. Grease, oil, petroleum fuels, and other dirt and grime will degrade the fire-resistant properties in the contaminated areas.

Maximum protection requires that sleeves be worn down, cuffs fastened, bottoms of trouser legs fastened, and shirt tucked into trousers. Never wear synthetic underwear with Nomex. Synthetic underwear melts. Who wants a batch of melted underwear

NOMEX
Spells Protection

By Jim Clark

PH3 Paul Hawthorne

hung around his or her equator? Changing to clean underwear before each flight is strongly recommended. In the event of a mishap involving burns, soiled clothes can produce infection.

Nomex Care

Care of the "tender, loving" variety is the magic ingredient that will ensure maximum protection from your Nomex garments. The Number One preventive maintenance action for your Nomex clothing is to keep it clean. There is nothing magical about the cleaning process. Nomex can be drycleaned, hand washed, or run through the home automatic or a commercial type unit. To obtain the best results, follow these simple instructions:

- ⇒ Turn all pockets inside out; brush away dirt, gunk, bits of paper, threads, and any other assorted trash. (Retrieve any paper money for future use.)
- ⇒ Use a water temperature of medium hot to hot.
- ⇒ Add enough powder detergent to make plenty of suds.



⇒ Wash clothes at least five minutes, rinse four to five minutes, and spin dry one to two minutes. Tumble dry, or hang in shade to drip dry.

⇒ Use a commercial fabric softener. Stop the machine and add it before the last rinse cycle starts.

⇒ Launder your Nomex as soon as possible after a fuel spill.

⇒ Never use starch; it will burn. And there go the fire-resistant properties. If some nonpro laundry type adds starch in the washing cycle, don't panic. Just run the Nomex through the rinse cycle a couple of times, dry it, and wear it with confidence. You can touch up Nomex with an iron, but never iron the hook-and-pile (Velcro) fasteners.

Some special tips apply to Nomex gloves. Wash and rinse them like Nomex shirts, trousers, and jackets. Drip dry or wrap the gloves in a towel. Stretch them into shape. Never put gloves in the direct sun or use hot air to dry them.

Never wear Nomex gloves when working around your equipment where they can be soiled with grease and oil.

They're supposed to be worn only when operating your aircraft. You may need a softening agent for the leather palms. Use neat's-foot oil or saddle soap. Don't be perturbed if the oil turns the leather darker.

Use of a fabric softener as recommended above, or during drying, is for a more

subtle purpose than to make them soft and cuddly. The softener acts as a fabric lubricant and moisture retention agent. It won't destroy the fabric's fire resistance. You'll notice that the amount of static electricity is reduced, too. This is most important, and here's why.

Electrical Hazards

Your body conducts electricity all the time, even when you're walking and working. In a dry atmosphere, you can build up and hold a charge of several thousand volts, like when you walk across a synthetic rug. Most of this electricity is drained away harmlessly as fast as it is generated through your shoes into the ground or floor. But if you're working with fuel, it could be dangerous.

Natural fabrics, like cotton and wool, rubbing against man-made fabrics, like polyester, may generate static electricity. For instance, when you take off Nomex clothing that is fuel soaked, your movements could cause a static electricity discharge that could set the clothing on fire.

If you do spill fuel on your Nomex clothing, move slowly away from the area. Get at least 50 feet clear of any fueling operation. Hose down your clothing before taking it off. Get the clothing off as soon as possible.

A little skin irritation from the fuel won't kill you. The fire following a static discharge could!

Final admonition: take care of your Nomex, and it will take care of you!

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Cold, Dark and Nowhere to Land

By Lt. Jim Winkler

In the C-2, there are two emergencies that require getting the aircraft on the ground immediately: an out-of-control fire, and a dual-hydraulic failure. With no mechanical backup, loss of both hydraulic systems makes the aircraft immediately uncontrollable. I faced this situation on a recent transatlantic ferry mission.

The aircraft had recently come from SDLM; numerous problems had made the flight fall well behind schedule. To cap things off, on a maintenance turn the aircraft jumped the chocks, slid on the ice, and struck a hangar on the AFB, damaging the left wing.

After the repairs were made and a PMCF flown, the aircraft developed several major hydraulic leaks from the recently replaced wing.

With more maintenance and a successful turn with no apparent leaks, the aircraft was up and ready to continue the mission.

Our departure was uneventful and after leveling off, I settled down to typical duties of aircraft commander and copilot: checking fuel consumption and programming the Omega.

It was a very dark night as we flew over the Greenland ice at 21,000 feet. Little more than an hour-and-a-half after takeoff, the flight-hydraulic low light illuminated. I was concerned but because we were close to our midway point, I had almost decided to proceed to our next destination when the aircrewman came up on the ICS and said we were going to get a low light on the combined system as well.

Suspecting a massive hydraulic leak, I had the copilot turn the aircraft back toward our departure point. Then we pushed the power up to get to the only available landing field. The next problem was that our divert field was scheduled to close in 10 minutes. The prospect of trying to land there with no radar or lights was not thrilling. Fortunately the C-2 has a high-frequency radio and I was able to get a phone patch and keep the field open.

The copilot and I then switched seats after completing the NATOPS procedures. We also had a reserve aircraft commander along and the three of us discussed our situation. We decided that if the hydraulic pressure gauges started to fluctuate we would try to set the aircraft down on the ice. The mountainous terrain would make a safe landing unlikely, but we preferred a crash landing to an uncontrolled descent from 21,000 feet.

As we came into range, the controller suggested a downwind for a visual approach as the fastest way to get the aircraft on deck. I concurred; however, the field was surrounded by a fjord and mountains and normally is accessed by a long straight-in approach. The downwind would require a high 180 to stay above the cliffs and a much greater-than-normal descent rate. I discussed the approach with the other crewmembers and advised the controller that I would accept the downwind. I requested a PAR monitor on short final. The problem

still had not developed into a major emergency. I did not want to cause a mishap by fixating on the emergency and failing to fly the aircraft. Lastly, we decided to delay powering the combined hydraulic system until on final, when we would need to configure the aircraft for landing.

We hoped this plan would keep the leak isolated and allow the hydraulics to last until we got the aircraft on deck.

Fortunately, the hydraulic pressure remained stable and I was able to land the aircraft safely. Postflight maintenance revealed an improperly bled hydraulic systems that allowed the reservoirs to appear low when in fact fluid levels were satisfactory.

You can easily break the old rule of aviate, navigate, and communicate when you are distracted by an emergency. Good crew coordination will always ensure that flying the aircraft remains the first priority. It is extremely important to know how to make maximum use of all the equipment in the aircraft. A rarely used item, the high-frequency radio can do more than just monitor the BBC; and in this scenario, it allowed a minor emergency to stay that way.

When you have only one divert field available, equal time points and knowing when they occur are invaluable in getting the aircraft on deck quickly. Even though we were almost halfway to our destination, the winds dictated that turning back was the more sensible solution. ◀

Lt. Winkler is a C-2 pilot with VRC-40.

Good crew coordination will always ensure that flying the aircraft remains the first priority.

5 Survived!

By Peter Mersky

The E-2 is one of only three fixed-wing carrier aircraft without an ejection seat. Escape from a Hummer in trouble requires that the plane either ditch or that its crew bail out. Fortunately, the Hawkeye is a dependable aircraft and has seldom left its crews in the lurch.

Between 1977 and 1991, only three mishaps involved actual or attempted bailouts. Of the 12 aircrewmen in these incidents, six survived. In 1978, the CAPC survived his jump, while his copilot (there were just the two pilots in the plane) jumped too low and was killed. In 1979, the crew couldn't jettison the entry hatch and rode their plane in.

All five crewmen had never successfully bailed out of a Hummer, until a VAW-122 crew experienced a fire off the cat on July 8, 1991. This is their story.



The crew of AE 601 had a cross-section of experience. The mission commander, LCdr. John Yurchak, was in the tube along with Ltjg. Terry Morris (RO) and Ltjg. Bob Forwalder (ACO). Up front, Lt. Vince Bowhersh (CAPC) would put Lt. John Lemmon, flying in the left seat, through his paces.

As they prepared to launch from USS *Forrestal* (CV-59) for a late-morning mission during Operation Provide Comfort, the five crewmen went through their normal checks.

"Are you ready, crew?" Lt. Bowhersh called.

"Crew's ready," LCdr. Yurchak replied.

Running the engines up and saluting the cat officer, Lt. Lemmon signalled the deck that everything

was ready for launch. The shooter touched the deck and moments later, 601 was airborne, climbing through a clearing turn.

The three NFOs began to prepare their equipment for the mission when Lt. Bowhersh exclaimed, "We've got a fire light in the starboard engine! Keep it climbing!"

Quickly, the three men in tube moved to check the starboard engine. The nacelle looked OK. LCdr. Yurchak later noted, "If I hadn't known about the fire light, I would have said it was fine."

As Lt. Lemmon climbed, Lt. Bowhersh radioed the ship. By now, LCdr. Yurchak had begun seeing uncharacteristic wisps of smoke coming from the starboard nacelle. There also seemed to be patches of soot forming.

As they climbed to 4,000 feet, Lt. Bowhersh declared an emergency and shut down the starboard engine.

"How long will it take you to dump?" the Air Boss asked.

"About eight minutes," the CAPC

replied. At this point, Lt.

Bowhersh

was not overly concerned and thought that, after dumping down to max trap weight, he could get back onboard.

He had experience with in-flight fires before, oddly enough in another Steeljaw 601. During that incident, after he had taken off from NAS Norfolk, the E-2's starboard engine had emitted a loud bang. Smoke and flames had begun coming from the engine, and Lt. Bowhersh had shut it down. He'd made a short-field arrested landing back at Norfolk. As serious as the earlier incident had been, he had been close to a large field. Now, he was over the water, and this time, the situation seemed to be developing into something much more dangerous. Still, he wanted to bring the plane back to *Forrestal*.

Like Lt. Bowhersh, LCdr.

Yurchak had also had a previous experience with an in-flight fire. En route to a det at Fallon, his E-2 had lost its hydraulics shortly after takeoff. Hydraulic fluid had covered the forward equipment-compartment deck, as well as several hot avionics components. The tube had quickly filled with smoke and fumes. The pilot had turned back and had landed, using emergency landing gear, flaps and brakes because he hadn't wanted to wait for the field crew to rig the arresting gear.

Now, nearing 4,000 feet, the three NFOs in the rear told him they could see clear liquid flowing along the engine—fuel! Lt.

Bowhersh pulled the T-handle and pushed the fire-extinguisher



button, hoping to extinguish the fire, but to no avail. The fire light glowed steadily. Suddenly, the flames flashed. He hoped that there wasn't too much fuel left and that it would quickly burn out.

LCdr. Yurchak's voice came through the ICS. "Vinnie, we're on fire. We need to think about getting out of here!" From his position, Yurchak and his two junior NFOs could clearly see that the nacelle was enveloped in flames. "Vinnie," he called the plane commander again, "it's time to go!"

The Hummer was now at 4,000 feet, and Lt. Bowhers felt comfortable about the altitude as he began to contemplate ordering a bailout. The ship had promised a ready deck in eight minutes, but he wondered whether he had eight minutes. He could see the discoloration on the starboard engine nacelle. LCdr. Yurchak kept reminding his plane commander of his steadily diminishing options. Lt. Bowhers made his decision.

"OK, everyone start preparing to bail out." Next he called the ship. "We are on fire. It didn't go out."

Fortunately, the E-2 was not alone. Although the Steeljaw crew had launched first, a VF-11 F-14 had followed and was now rendezvousing with the crippled Hawkeye. Two H-3s from HS-15 were in the air, with another on *Forrestal*'s deck. A fourth helo, an H-2 from USS *Yorktown* (CG-48), was also refueling on the carrier's flight deck. The weather was warm and sunny, and the water below was in the low 80s.

As the fire spread to the wing, the CAPC called, "We'll have to bail out!"

He started going through the check list with Lt. Lemmon in the left seat. He trimmed the aircraft but didn't use the flaps. He thought that the added drag would only put undue

strain on the possibly weakened wing. If the wing broke off, there would be no chance at all to bail out.

Lt. Bowhers called to jettison the entry hatch. The E-2 does not have a light in the cockpit to tell the pilots that the hatch has been jettisoned. He called back to the NFOs, but got no reply. He naturally assumed that the door was gone and the three crewmen had jumped. That was not the case.

LCdr. Yurchak and Ltjg. Morris had unstrapped from their seats and were moving to the hatch. But Ltjg. Forwalder, the rearmost crewman, had trouble disconnecting a few things. He had also lost his boom mike and, while he heard Lt. Bowhers' call, he could not answer the pilot.

The first two NFOs had jumped, and finally, Ltjg. Forwalder was able to move forward.

"It's odd," he commented later, "that when we go through our ditch-and-bailout drills, it seems hard to get out of the hatch wearing our flight gear. People get hung up, but I had no problem and slipped right through. I hesitated for a moment at the door, still denying that this was really happening. I wondered if I had forgotten anything, but I got into the position at the door and jumped."

He had made several parachute jumps before and the experience would help. He tucked his chin against his chest and rolled out.

"Good chutes!" the F-14 crew called.

Now, the crew in the back were gone, leaving the two pilots alone in

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Peter Mersky

the doomed aircraft. Although procedures normally called for the pilot in the right seat to go first, Lt. Bowhers told his junior pilot to jump ahead of him.

"The hardest thing was to actually get out of the cockpit with all my gear. When I turned around, I saw Lt. Lemmon waiting at the main entrance hatch.

"He looked at me and touched his D-ring to remind me to grab my own ring. I signalled that I understood and that he shouldn't worry. Satisfied, he jumped out."

The Descent...

Now that they were apart, each crewman had his own concerns. As they drifted down toward the Mediterranean, they could see each other, if only for a moment or two. There was not a lot of time to admire the scenery.

Ltjg. Morris had jumped first. He was fairly confident because he had



completed water survival training less than eight weeks before the deployment.

"I never really thought about procedures," he said. "I just started doing things—hooking up to the life raft, dropping the seat, releasing the parachute."

Like Ltjg. Forwalder, he had also made several jumps with the Army at Fort Benning. He saw LCdr. Yurchak and tried to steer toward the mission commander. However, the wind was too strong, and he gave up. Besides, it was time to prepare for water entry.

LCdr. Yurchak had a good chute. As he descended, he saw the covering Tomcat and the forlorn shape of the E-2 as it headed away from the scene. He watched to see if the two pilots would jump.

"Come on, you guys," he thought, "get out of there!"

He began oscillating in the chute. He reached up to the four-line release

and pulled. The swinging stopped. Next, he concentrated on deploying his raft and survival pack. The water was coming up fast. He reached for his upper koch fittings.

"Gee, I wonder if the two pilots made it out," wondered Ltjg. Forwalder as he checked his situation. He had a slight scare when he pulled his rip cord and felt it extend only half-way. He had expected to yank it out completely, and when he felt the resistance he kept tugging, stopping only when he felt the opening shock.

"It was amazing

how quickly things came back to me," he recalled.

He inflated his life vest and released his raft. He decided against using his four-line release because everything was fine so far. He could see his two fellow NFOs as they drifted beneath him.

He started to get ready to hit the water. During his swim training, his wife had watched him struggle in the pool as the parachute dropped on top of him and he became entangled in the risers.

"If that was real," she had told him later, "you'd be dead!" He remembered her words as the water rose toward him.

Lt. Lemmon, the copilot who had been flying from the left seat, had a strong opening shock. He tried to reach the risers but couldn't raise his left arm; it had jerked up as he jumped into the slipstream. There was no feeling in the arm and he feared he had broken it. Feeling soon

returned, however, and he started getting ready for water entry. He had seen his plane commander jump from the E-2, and he could also see another chute below him, which might have been Ltjg. Forwalder.

When he followed Lt. Lemmon, Lt. Bowhairs had jumped into an estimated 180-knot slipstream instead of the normal 150-knot wind. He had trimmed the aircraft to fly straight and level, with full power on the port engine to compensate for the secured starboard engine. As a result, the plane slowly accelerated and the increased speed combined with the slipstream of the port prop to rip off Lt. Bowhairs' helmet as he jumped.

"I had a good chute, and I saw the plane flying on. I saw one other chute which I assumed was my copilot. I started my IROK procedures. We had just done raft training the week before, which was the best training I had ever had.

"It was a nice, sunny day, and there was warm water below. I connected my lobes and saw the water rushing up. I grabbed hold of my koch fittings and released them as I felt my feet hit the water. I fell backwards, and the chute pulled off clear. I kicked quickly into my raft to assess my situation."

All five men were safely in the water. The welcome sound of helicopter blades beating the air soon told them that a SAR effort was well under way.

Ltjg. Morris watched an H-3 come toward him as he waited in his raft. He had heard LCdr. Yurchak making calls on his survival radio. Ltjg. Morris popped a smoke flare but soon realized that the H-3 pilot did not see the signal. He next tried some pencil flares. That did it; the Sea King pilot waved through his cockpit windshield as he drove toward the downed crewman. Soon, a swimmer was in the water and connecting Ltjg. Morris to the hoist cable.

The SAR crew thought that Ltjg. Forwalder was hurt. He was sitting in a spreading area of dye. From their vantage point, the helo crew thought that the dark water might be blood.

The swimmer asked him if he was hurt, and after the NFO said he was OK, the swimmer punctured the raft and sunk it.

"He got behind me and started swimming with one arm," Ltjg. Forwalder said. "I felt pretty good though, so I started helping him." After Ltjg. Forwalder was safely onboard the Sea King, they picked up Lt. Lemmon.

Lt. Lemmon had not been through water survival training in the FRS because his fleet squadron was getting ready to deploy and didn't have time to schedule him. Fortunately, he had gone through a ditch-and-bailout drill with his unit and had now put that training to good use.

Once in the water, he pulled his raft to him and inflated it. Soon, he heard the Ripper Tomcat and he lit off a flare. His pack of green sea dye had also burst and he was sitting in the middle of the spreading stain. He waved at the approaching H-3. The swimmer jumped into the water, swam over to Lt. Lemmon and completed the SAR.

LCdr. Yurchak was comfortably seated in his one-man raft as he wondered if the rest of the crew were OK. He started drifting toward his chute, but he paddled away from it.

He took out his radio and began calling.

"This is Yurch. Anybody there?"

"This is Terry," Ltjg. Morris responded. "Do you see my smoke?"

LCdr. Yurchak couldn't see the RO's signal, but he was glad to hear the junior crewman's voice. Soon one of the HS-15 H-3s appeared and dropped a swimmer. The SAR

crewman checked the mission commander over and hitched him up to the sling. Moments later, he was in the H-3 as it moved toward Ltjg. Morris.

The last man to jump was also the last man to be rescued. Lt. Bowhairs waited in his raft. He heard several aircraft overhead. An EA-6B was monitoring guard and told the pilot that an F-14 from VF-11 had him in sight. It was comforting to know that people were working to find him.

Soon he heard a helicopter and he popped a smoke flare. The smoke formed a little cloud but blew downwind of Lt. Bowhairs' position.

"Don't go for the smoke," he called, but the H-3 charged right for him. The pilot had taken an ADF cut when he spoke. The Sea King flew right over the surprised pilot, but there was the H-2 from Yorktown moving in right behind. The H-3 pilot later said that it was hard distinguishing Lt. Bowhairs' hand-splashing from the small whitecaps. If the E-2 pilot had his helmet, it would have stood out better. His green flight suit and black raft didn't help.

The Sea Sprite's swimmer jumped and made a quick hookup. (The Sea Sprite had not launched from the cruiser with a SAR swimmer, but while the Yorktown helo refueled onboard Forrestal and prepared to launch for the E-2 SAR, one of HS-15's SAR swimmers volunteered to go with the H-2.) Once inside the little H-2, Lt. Bowhairs asked about his crew. Yes, the other four men had been picked up.

"What about the E-2?" he asked. He found out that his errant Hummer had kept flying and was headed toward the Turkish-Syrian border. A VFA-132 F/A-18 was vectored to the

Hawkeye and shot it down. The wing eventually came off the E-2—within eight to twelve minutes following the bailout—although no one is sure whether it was because of the Hornet's cannon fire or from fire damage.

Lt. Bowhairs said, "If I had waited any longer to order the bailout, we might not have made it. Certainly, if I had tried to get back to the ship—and even if they had let me try to come onboard, on fire—the wing might have come off, especially if I had tried to lower the flaps and gear."

Overall, the five crewmen credited their training, especially the recent bailout drills, with having let them make a quick, but orderly, exit from their aircraft. Lt. Bowhairs also credited his mission commander for keeping him alert to the developing situation.

"The real key was LCdr. Yurchak, who kept me informed and able to make decisions before it was too late."

The other members had specific thoughts. Lt. Lemmon said, "I was relatively inexperienced and that was something to consider for the guy who signed for the plane."

Ltjg. Morris noted that the E-2 has windows only on the starboard side of the tube. What would have been the case if the fire occurred in the port nacelle?

"There were a couple of things I should have done," said Ltjg. Forwalder. "I didn't get rid of my HEED bottle. I jumped with it, and it stayed with me the whole time. I also should have grabbed the risers, not the rip cord. With my hand on the cord handle, a strong wind blast might have made me pull the handle prematurely, too close to the aircraft."



A Chance to Excel

By Cdr. Lee Mason

- Air show practice in F-4s
- Salty ex-F-8 pilot
- RIO approaching 1,000 hours in the F-4
- Chance to "compete" with the Blue Angels
- Same air show routine as flawlessly performed last year
- Practiced a thousand times before with no problems
- No prebriefed "what if" reactions during maneuvers
- Lack of aircrew coordination

This list could be the causal factors of a Class A mishap. Everything applied to me and my pilot several years ago while flying red F-4s (target aircraft) in an opposing solo routine for the annual airshow at NAS Point Mugu. Fortunately, we narrowly escaped making a smoking hole in the middle of the runway and we didn't have to activate the mishap plan.

I had flown the routine the year before with a former skipper of the Blue Angels. The crowd loved it. One red Phantom at the speed of heat (Whoops! Occasionally slid through that sound barrier) doing knife-edge passes, aileron rolls, inverted passes, half-cuban eights and a tight loop. The other F-4 was dirty and slow with the routine topped off by a tuck-under break, re-

join and a section landing.

During the final practice before the airshow weekend, the loop got a bit too tight. We topped out well below our previous perigee, became distracted trying to find our wingman, and as a result, delayed the pull coming downhill. We bottomed out within a few feet—maybe inches—of the runway. Just a little higher than the F/A-18 that crashed at El Toro a couple of years ago.

We were so close to hitting the ground that the F-14 crew waiting to take off at the opposite end of the runway saw us disappear in the heat-wave mirage of the runway. The Tomcat crew, as well as several other aircrews watching on the ground, had to hide their eyes from what they thought

would be a fireball. How do I know? I still have the videotape. I break out the tape once or twice a year, just to reinforce how lucky I am to be alive.

The biggest lesson I learned is that if my pilot and I had followed today's safety rules, we would never have gotten into that close situation. If that incident had happened today, at a minimum, we would have been grounded, and not allowed to fly in the show.

We were allowed to press on. We managed to fly a safe show the next day (the bottom of the loop was 1,000 feet). The rules are more stringent today. Who knows how many lives we have saved as a result. ◀

Cdr. Mason is a former CO of VF-213. At the time of the incident he describes, he was assigned to the Flight Test Directorate at PMTC Point Mugu.

How Did We Get Here?

By LCdr. Richard W. Martin

It was a dark and stormy night...no kidding! My BN and I were scheduled to go to the target and drop 12 25-pound lumps of blue death. During the weather brief, we saw that thunderstorms were supposed to cover an area on our route but that the target area would be clear.

The first indication we had that things would not go as planned was when the section that launched ahead of us turned back only 50 miles from home; weather was the problem. Undaunted, we pressed on, my BN saying that he could see a hole through the storm on his radar. Sure enough, we headed toward the target area unmolested by turbulence, rain or lightning.

As we approached the target, center gave us a descent. Passing FL 200, I asked again, "How do things look?" When I didn't get an answer, I started feeling uneasy, like when you wish the huffer hadn't worked. I asked my BN again.

"Leave me alone," he finally said. "I'm busy." Then he said, "OK, come a little right...no, left." Finally, "Just hold your heading."

Then I asked if we should reverse course and climb, but he said no. We were surrounded. The storms announced their presence with a flash of lightning and a jolt of turbulence. Within seconds, St. Elmo's fire covered the windscreen and the radios became almost unusable. (All-weather jet, fair-weather radios.)

As we descended, the turbulence and lightning got worse, and we also had light icing on the airframe.



After what seemed like an eternity, the radios cleared up enough so that I could ask for a further descent to VFR conditions underneath.

We broke out of the clouds and heaved sighs of relief. Now to go bomb. We turned to the target frequency and listened in disbelief as the observers told us that the target area was closed because of heavy rain and frequent air-to-ground lightning. As if to emphasize the point, a giant lightning bolt hit the ground right on the run-in line.

"OK, OK, bombing's out," I said. "Let's go shoot an approach at Portland International and at least get a night divert for training."

As we turned east, we watched an entire 90-degree sector of sky light up directly in front of us. Still VFR in the target area, I was about to suggest an approach at yet another possible divert when the long overdue warning bell rang loud and clear. The heck with the training points and making the flight up on the fly. We needed to go home and get the jet back on the ground. We could do the mission any time.

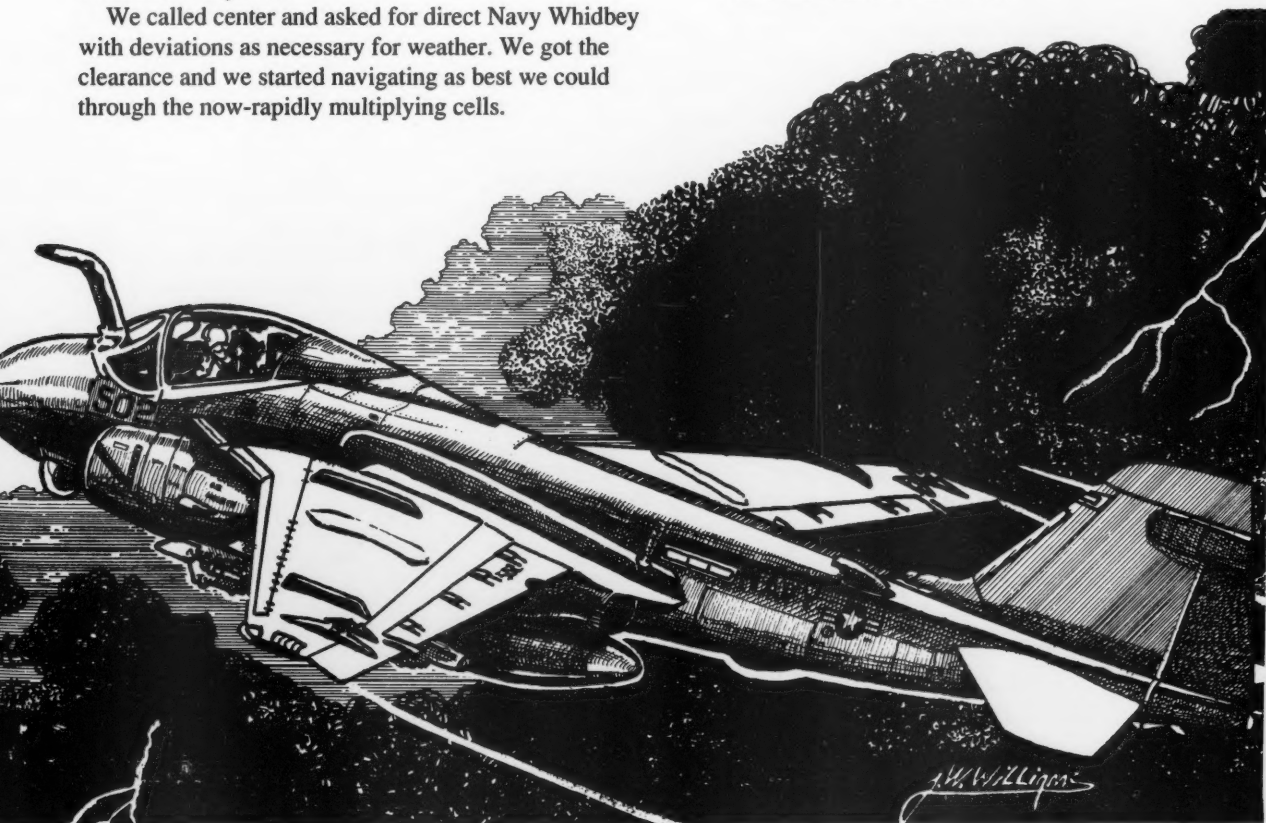
We called center and asked for direct Navy Whidbey with deviations as necessary for weather. We got the clearance and we started navigating as best we could through the now-rapidly multiplying cells.

The trip back through the mass of clouds was as terrifying an experience as I have had in 15 years of peacetime flying. The refueling probe now sported a flower of St. Elmo's fire. We had moderate icing and I even had to turn on the thunderstorm lights to see the instruments during the all-too-brief periods of darkness. We finally broke out of the tops at FL 230 and relaxed just a little as we watched the accumulated ice slowly start to melt.

We were quiet on the way back, two experienced aviators thinking about what had happened. When we landed after a straight-in approach, we checked the aircraft as thoroughly as I have ever done after a flight. Not a scratch, dent or nick.

During our painstaking debrief, we covered all the flawed decisions we made in only one hour. First, we had let our confidence get the best of us. Second, we had pressed on in the face of overwhelming evidence that the target area was clobbered. Third – and most important – we had tried to wing it and fly a completely unbriefed second mission.

LCdr. Martin flies A-6s with VA-145.



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Left to right: Maj. Douglas F. Ashton, USMC; Capt. John F. Armstrong, USMC; Cpl. Thomas W. Rudolph, USMC; SSgt. Steven A. Daly, USMC; Sgt. Tab D. Tesreau, USMC

Maj. Douglas F. Ashton, USMC
Capt. John F. Armstrong, USMC
SSgt. Steven A. Daly, USMC
Sgt. Tab D. Tesreau, USMC
Cpl. Thomas W. Rudolph, USMC
HMH-461

Six CH-53Es launched from Homestead AFB in support of an exercise. The flight began an extended over-water trans-Caribbean route with two aerial refueling points. The lead aircraft, Haley 02, with Maj. Ashton (HAC) and Capt. Armstrong (copilot), carried 10 passengers and 4,000 pounds of cargo.

After the first refueling point, two hours after takeoff, the crew noticed an increase in vibrations in the rotor system. They checked the tip-path plane and saw that one main rotor blade was almost eight inches out of track.

With nothing but water beneath them, the crew continued toward the second refueling point. The vibration continued to increase. By this time, the flight rendezvoused with the KC-130 tankers, Haley 02's blade was 18 inches out of track. Maj. Ashton decided to divert to an island airfield and forego the second refueling. He told

the SAR aircraft and told his wingman to refuel and rejoin.

The vibrations worsened. It was obvious that the blade was out of control since it was now 36 inches out of track, causing a severe two-foot vertical beat. The helicopter began to shake violently.

Maj. Ashton descended to 500 feet over the ocean while Capt. Armstrong and SSgt. Daly, Sgt. Tesreau, and Cpl. Rudolph prepared the aircraft and passengers for ditching. The divert field was still 20 miles away when the aircraft passed over a small, 200-foot by 600-foot uninhabited coral reef, which was barely above sea level. Although Maj. Ashton initially rejected the atoll as a landing site, he reconsidered when the crew chief reported large parts of the rotor system were separating from the aircraft.

The HAC turned around and flew toward the reef. The blade was now five feet out of track. Despite the severe vibrations and deteriorating situation, Maj. Ashton made a no-hover landing on the tiny atoll without further damage to the aircraft.

A postflight inspection showed just how badly the CH-53E was damaged: a pitch-change rod and pitch-control horn were missing because a sleeve

and spindle had seized.

The crew also found severe damage to the second-stage hydraulics system, as well as a one-inch gap between the vernier scales where the sleeve was separating from the spindle. Subsequent analysis revealed that only a few minutes remained before catastrophic failure.

Capt. Dan G. Claney, USMC
VMA-542

Capt. Claney was leading a section of Harriers on an ACM sortie against two Hornets when his aircraft collided with one of the F/A-18s. One of his AV-8B's outrigger landing-gear actuators was destroyed, leaving the gear inoperable and in a trail position.

Although this emergency is not covered in NATOPS, Capt. Claney decided to make a vertical landing at MCAS Beaufort.

As the aircraft slowed during deceleration, the damaged outrigger fell to the vertical position. During touchdown, Capt. Claney used the Harrier's reaction control system to gently lower the outboard station onto the deck as the port gear collapsed. The AV-8B did not sustain any further damage.



BRAVO ZULU



Left to right: LCdr. Scot Jones, Ens. Adam Polak, AW1(AW) Jeff Wright, AW3(AW) Matt Borgert

LCdr. Scot Jones
Ens. Adam Polak
AW1(AW) Jeff Wright
AW3(AW) Matt Borgert
HS-15

Red Lion 614 was carrying nine passengers from USS *Forrestal* (CV-59) to Incirlik AFB, Turkey. LCdr. Jones (HAC) and Ens. Polak (copilot) saw the master caution light flicker, followed by a TRANS OIL PRESS caution light. Cross-checking the gauges, LCdr. Jones noticed that the transmission-oil pressure was indicating approximately 12 psi while the torque gauges showed 25-30 percent.

AW1 Wright (first crewman) confirmed that the transmission oil was leaking down the starboard side of the aircraft. Faced with a catastrophic failure of the main gearbox, LCdr. Jones declared an emergency and turned back toward the carrier, approximately 30 miles away.

As the SH-3H flew toward *Forrestal*, the oil pressure and torque declined. LCdr. Jones asked for vectors to the nearest ship. USS *Yorktown* (CG-48) began steaming toward the stricken helicopter at maximum speed. Mean-

while, AW1 Wright and AW3 Borgert prepared the cabin and the passengers for a possible controlled ditching.

Five miles from *Yorktown*, gearbox pressure had fallen to two psi and torque was between 10-15 percent.

LCdr. Jones established a shallow glideslope, minimum-power approach to the cruiser's deck. Crossing the deck edge, both transmission pressure and torque fell to zero as the main gearbox began making loud howling and grinding noises.

Postflight inspection showed that the No. 2 input shaft's seal had failed, and that both chip detectors contained large amounts of molten metal. Complete seizure of the main gearbox was less than two minutes away.

Lt. Lance Norton
VFA-136

Lt. Norton launched on a mission from USS *Dwight D. Eisenhower* (CVN-69) in the Arabian Gulf. A bolt from the left nosewheel sheared during the launch, FODing his F/A-18's right engine. Half-way down the deck, an ENGINE-RIGHT caution appeared as a 20-foot flame extended from the

tailpipe, and molten metal showered the flight deck.

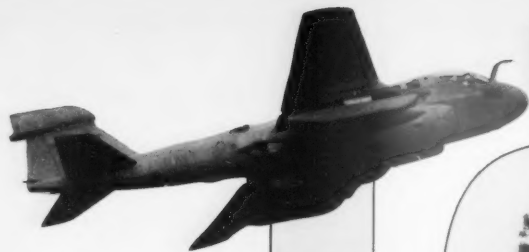
Lt. Norton selected full afterburner on both engines as the Hornet settled and yawed to the right. He promptly went through immediate-action NATOPS procedures, stopped the sink rate, and climbed. Passing 1,000 feet, the pilot moved the right engine's throttle to idle. The caution ceased, and everything seemed OK.

Once level at 5,000 feet, Lt. Norton had another squadron aircraft join to check over his aircraft. The wingman couldn't see any damage or other problems with Lt. Norton's aircraft.

Lt. Norton started dumping fuel while preparing for a straight-in approach to Ike. Suddenly, the RIGHT FLAMEOUT caution appeared, along with decreasing engine rpm and rising engine EGT. He secured the right engine, then flew a single-engine, half-flaps pass to an OK 3-wire.

25





How LOW Can We Go?

By Lt. Alan Troy

26 **O**ne of the advantages of a multi-seat aircraft is that more than one person can monitor aircraft parameters and look for conflicting traffic, especially when the pilot is overtasked or has left something out of his scan. In the worst conditions, aircrew have their guard up and pay close attention to what the plane is doing. But, when things are not happening as fast and conditions are good for flying, it is just as essential to continue backing each other up.

Our mission was a simple night instrument hop. We were going to launch just before sunset, fly east over the mountains, shoot a TACAN approach and return to the "box" pattern for multiple approaches.

As the new guy in the squadron, with the least amount of experience of my crew that night, I gave an extra thorough brief. I also paid attention to everything I could glean from the rest of my crew. The brief went well, and the weather reported was VMC.

The trip over the mountains and subsequent TACAN approach went without a hitch. Back toward home base, Center frequency was relatively quiet, and we completed the handoff to approach early. We made two approaches and were on the final one for a full stop. On the turn to base leg, approach cleared us down to 2,500 feet, still in the clean configuration.

As centerline approached, we got clearance to "dirty up, turn left 130 degrees, descend to and maintain one point two". As we made the turn, we got a traffic call at "10 o'clock, three miles, altitude unknown". I kept the descent and turn going through 1,500 feet while looking

for the traffic.

ECMO 3 (the left rear position) got the first visual on the traffic and called it to the crew. With the traffic now in sight, I looked toward the runway, but the light pattern was unfamiliar. A quick check of the altimeter showed me at what I thought was 1,500 feet. One more glance at the runway convinced me that this was not the picture I should be seeing at four miles.

When I looked at our radar altimeter, I could not believe what I saw: 400 and going lower. I had dropped the thousand-foot needle out of my scan and just watched the hundred-foot needle sweep. I immediately added full power to climb back up to the correct altitude of 1,200 feet. No one in the cockpit or the approach controller had said anything. Luckily, the approach brought us in over the water, and we were not IMC. The rest of the approach and landing was very quiet.

As we debriefed the hop, none of us could believe what had just happened. Four competent aircrew, two of which had five cruises between them, had not seen what we had set ourselves up for. Reviewing the approach tapes showed us as low as 300 feet!

Our squadron SOP dictates exactly where the radar altimeter should be set for all phases of flight. It hadn't been. Also, I should have told my crew where it was set. This might have eliminated the problem to begin with. With four crew members, certainly one of us should have been inside the cockpit while the others were looking for the traffic. ◀

Lt. Troy is an EA-6B pilot with VAQ-137.

My Kingdom for an ILS

By Lt. Dan Mellecker

I was flying a one-leg cross-country into Buckley AFB in Denver. The weather at brief time was good, but there were thunderstorms in the area. The forecast was for 6,000 and 7 at land time. The only NOTAM for the destination airfield was that the PAR would be down.

There was a small problem during post-start checks. They delayed my takeoff and I was just about to call weather for an extension when the troubleshooter gave me a thumbs-up.

About 120 miles from Denver, the weather started to deteriorate, and center was getting anxious for me to descend. I told them that if I descended at this range, I wouldn't be able to accept the inevitable vectors around the north of the city. I guess I didn't get their attention because I was soon on an initial vector off course to the north. I declared minimum fuel. I had switched to a local FSS and, to my relief, heard that the weather was 3,000 and three.

"Beauty," I thought, "I can still go into the break."

Fifty miles out, with a sweet lock, I thought everything would soon be coming up roses. I quickly awoke from this dream when I heard,

"Bogey 26, you are cleared for ILS approach, runway 32. Report commencing." A million questions raced through my mind.

What about the break? What happened to the weather? Why not a GCA? What about a TACAN approach? Who invented liquid soap, and why?

"Approach, Bogey 26. Unable. Not equipped."

"Bogey 26, Denver Approach, say intentions."

I quickly asked for the TACAN, recalling that the PAR was down.

"Bogey 26, the TACAN is inop."

"That can't be," I thought as I stared at my now-spinning TACAN. Suddenly, I wasn't feeling so good about this whole thing.

"Bogey 26, would you like to go to Peterson?" approach asked.

Would I! Too bad I let you guys talk me into burning up my back-pocket of fuel. Realizing I no longer had the fuel to make it to Colorado Springs, I declined and asked about Stapleton International.

"Roger, Bogey 26. You are

cleared for ILS, runway 26 right."

"This is Bogey 26. I am still not equipped for ILS. Can you give me a GCA?"

"Negative, Bogey 26. Do you have the runway in sight? Your right two o'clock, six miles."

"Bogey 26, field in sight," I replied as I lined up for landing. I touched down and an indescribable relief swept over me. So much so that I didn't immediately see that the runway was soaked with standing water. My relief was again short-lived as my F-5 skidded down the runway. I was 90 degrees out from the runway heading and still going 80 knots when I decided I didn't get paid enough for this hassle.

I slowly corrected the nose back toward centerline and slowed the plane down. But I had blown one of my mainmount tires. I turned onto the taxiway as I slowed to a stop. After a short FOD sweep, the field was operating normally.

I was lucky. Aside from a flat tire and a little embarrassment, everything turned out OK. The odds can stack up against you in a hurry if you aren't prepared. It isn't nice to fool with Mother Nature. ◀

Lt. Mellecker flew F-14s with VF-21. He is currently assigned to VFA-127.

27





By Lt. Kenneth T. Ham

Whoosh! A bright flash from station one. It could only mean one thing. I keyed the mike, but nothing came out. I had just inadvertently fired a live Heater at a Tomcat! In that instant my whole life changed.

We've all read stories where someone describes an error that leads to some catastrophe or near-catastrophe. If you're like I was before this incident, you'd tell yourself, "Whew, I guess I should be more careful too." But do you ever really analyze your attitude? Does your flying technique really change? Probably not. If nothing is wrong why fix it?

Oh! By the way, the 'Winder didn't guide.

At the time, I was fresh out of the FRS. I had just over 200 hours in the aircraft. I was also becoming very comfortable around the ship. I remember thinking, "This Naval Aviation thing is a piece of cake!"

The ship and air wing were undergoing another

hostilities phase and the flight schedule was in max flex. I got a call in my stateroom for an unscheduled night hop. I readily accepted. After all, what else is there to do at sea but rack up flight time?

A hurried but thorough brief covered the mission, which seemed simple: we would be a section of bogies for an A-6 strike escorted by F-14s.

We manned up on time for a pinky launch. During my preflight I remember chuckling to myself about the two live 'Winders on my Hornet. Why would we carry two live AIM-9s off the coast of the U.S.? Later I found out that this was because the ship had no room for "blue tubes" since we were loaded out to go east in support of Desert Storm if needed.

The climbout was beautiful. The sun was well below the horizon and a full moon was rising. With a snap vector call, we began our run to the north. I had multiple contacts

at long range. We figured out who was who and committed on the striker. As we neared our target, my lead executed a preemptive chaff break, dropping chaff and flares. I armed up and did the same. Dispensing expendables in the Hornet requires master arming. This was mistake no. 1: arming up with live, forward-firing weapons. I should have left the master arm in safe and simply simulated the expendables drop.

We continued inbound as I waited for Sparrow range. The proper symbology did not develop and I decided the problem was that I hadn't boxed SIM, a simulation-training mode which presents the pilot with complete A/A weapons symbology. SIM also prevents weapon release. I checked the stores page to box SIM but the option wasn't there! I was now baffled, and I tried cycling master modes and other standard Hornet tricks to no avail.

It turned out that the option is removed when master arm is armed, but my knowledge of SIM systems was weak. Mistake no. 2: SIM should have been boxed during my combat checks prior to the engagement.

Things were happening quickly and the striker was passing below. I pulled in behind with gun selected. With a simulated Fox-2 from my lead, and me in trail of the A-6, we called him a kill and turned hard toward the Tomcat escort. They were approximately three miles away and closing fast.

My lead pulled for the southern escort as I continued

to pull for the northern escort. I selected Sidewinder as the Tomcat passed my nose at close range. I keyed the mike and called, "Fox-2," as I squeezed the trigger. That was mistake no. 3. I pulled the trigger with live, forward-firing ordnance onboard. This is an SOP violation. We only pull the trigger during training so that we can validate shots after the flight, and when we're carrying CATMs; it marks the HUD tape when you take a shot. Luckily, the shot was invalid because of an excessive track-crossing rate and lack of tone. The missile did not guide.

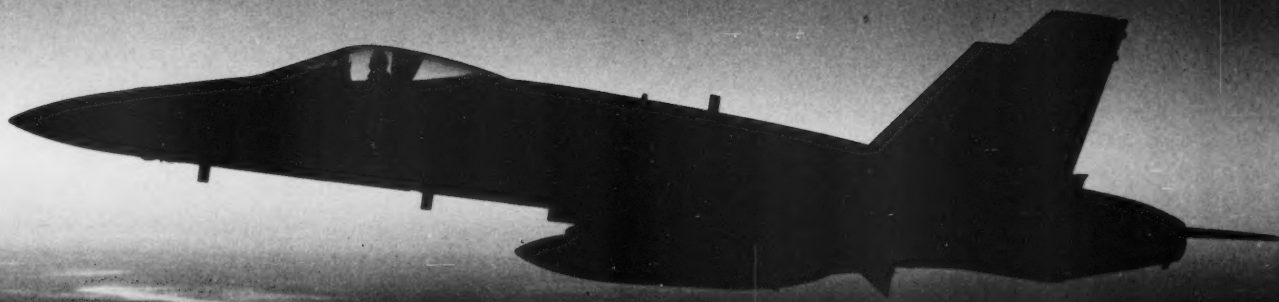
Any of three events could have averted this incident: not arming up with live weapons with no intent to use them, boxing SIM prior to the engagement, and not pulling the trigger with live forward-firing weapons onboard.

I believe that these errors, although possibly compounded by inexperience, resulted from my poor attitude toward flying. Since then, my attitude has changed drastically. Two men could have died that night as a result of my carelessness. Flying multimillion dollar aircraft from aircraft carriers at night with or without live weapons is serious, no matter how confident you are.

I said my whole life changed that night. I have become a much more conscientious pilot. This transition was not easy. There was quite a bit of pain, suffering, and embarrassment.

Lt. Ham flies F/A-18s with VFA-132.

LCdr. Dave Parsons



Sharks! I Ha

I was an H2P about to finish my first Westpac in the SH-2F. We were approaching the five-month mark and the detachment was feeling fairly comfortable around the ship. While en route to the 1988 Summer Olympics in Korea, I would experience something I'd never forget.

Our det was tasked to provide plane-guard services during a scheduled unrep, followed by pax transfer just before nightfall. We manned the aircraft with an extra crewman in SAR gear and headed out on the mission. After we finished the plane-guard portion of the flight, we spent about 30 minutes working with CIC. While waiting for the pax transfer, the crewman spotted a fishing net adrift containing a large school of tuna.

30 We dropped down for a closer look and to our surprise, saw several 12-foot sharks circling the net. We joked about this being a bad place to go in. We picked up our passengers and flew to the unrep ship, 20 miles away. We arrived and waited for a green deck for about 20-25 minutes.

While we waited, the tower asked if we needed fuel. Since H-2 pilots never pass up fuel, we replied, "We could use about 1,500 pounds."

We finally landed just before sunset and the flight deck was chaotic. The LSE was giving us various non-standard signals, and the chock and chainmen were clueless on where to attach the tiedowns.

I directed our crewman to help with the chains and get a fuel sample. He returned after a few minutes with the sample and gave us a thumbs-up. We tried to hot-fuel, but because of confusion in the pump room, we were unable to.

By the time we finished refueling, the totalizer indicated 2,550 pounds. We gave our ops-normal report and we were then tasked to provide the battle group with one last surface picture for the evening. At about the 20-minute mark, I rechecked the fuel and the totalizer and the pointer showed 2,750 pounds. I wondered if I had miscalculated the last time or if there was a problem with the indicator. We decided to monitor the fuel closely.

We climbed to 1,200 feet to maximize the radar cover-

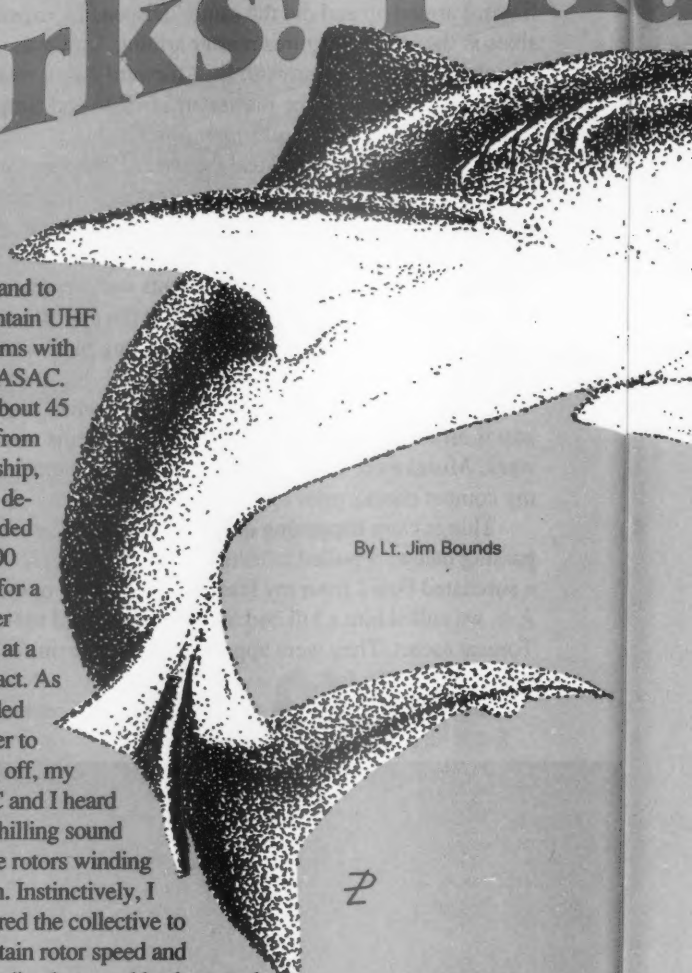
age and to maintain UHF comms with our ASAC.

At about 45 nm from our ship, we descended to 500 feet for a closer look at a contact. As I added power to level off, my HAC and I heard the chilling sound of the rotors winding down. Instinctively, I lowered the collective to maintain rotor speed and immediately turned back toward our ship. I tried to add a little power to maintain altitude and the rotor speed again drooped to 94 percent.

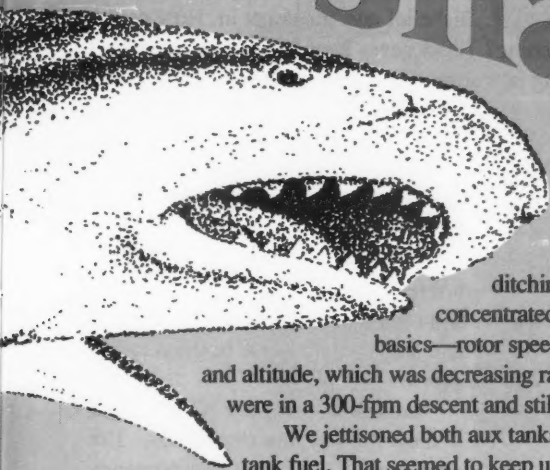
We verified the engines were topped just above ground idle. We systematically began troubleshooting: ECLs in fly, actuators normal, circuit breakers in. We selected manual fuel on both engines without response. We declared an emergency and asked the ship to close our position at max speed. We reviewed the checklist, but nothing matched our situation except for partial power loss to both engines. We also reviewed the ditching checklist.

To complicate the situation, the weather was deteriorating with 700-foot overcast, one-mile visibility, no horizon and a sea state of three. The AWs were updating range and bearing to the ship and preparing the cabin for possible

By Lt. Jim Bounds



ate Sharks!



ditching. We concentrated on the basics—rotor speed, airspeed, and altitude, which was decreasing rapidly. We were in a 300-fpm descent and still dropping.

We jettisoned both aux tanks and aft-tank fuel. That seemed to keep us from descending—at least for the moment. We discussed how we were going to get aboard, and agreed a single-engine approach profile would be best. What if we hit the ship? What about the flight-deck personnel being wiped out? What about a controlled ditch? Well, the aircraft made the decision for us: again we began to fall rapidly.

We were totally on instruments when the No. 1 generator kicked off-line because of the low rotor speed, approximately 88 percent Nr. The radalt froze at 100 feet and ASE (automatic stabilization equipment) disengaged. We knew at this point that we would have to put the aircraft in the water.

We told the ship to mark our position and that we were ditching. At the same time, the No. 2 generator kicked off-line, so we lost hydraulics and most of the engine and flight instruments. We rolled to approximately a 45-degree bank trying to get into the windline. This caused the Nr to build a mere 82 percent.

The landing light illuminated the water at about 50 feet. We flared and hit the water hard but level. The aircraft was intact, but it rolled inverted. The HAC applied up-collective while I was secured the ECLs. The aircraft was rapidly filling with water. I reached for a reference point, released my harness and got out of the sinking aircraft. I watched the HAC take his last breath of air before he was forced underwater. Once clear of the helicopter, I desperately scanned the ocean surface for survivors.

A white helmet appeared in the rough seas; another survivor surfaced about 25 yards away. It seemed like eternity before the fourth helmet surfaced. We were relieved

everyone had survived. We hooked our LPUs together and checked each other for injuries. With the taste of JP-5 in my mouth, I watched our war machine sink into 1,800 fathoms of water.

We regained contact with our ship via the PRC-90 in about 15 minutes. We prepared our signaling equipment and established a game plan for rescue. We divided up separate search sectors and discussed survival techniques to get ready for the long night ahead. We were in a deep, dark ocean. Visions of the circling sharks entered each of our minds. I swear I heard the music from "Jaws." You know—"Daaa dum, daaa dum, daa dum." The wind was blowing about 30 knots, producing heavy swells and white caps that made us all cold and nauseous. After about an hour-and-a-half, an H-3 picked up our signal flares and beacon from the PRC-90. Seeing the Sea King's anti-collision light was like seeing an angel. They sent the SAR swimmer down to us and he sent each of us up the hoist. The hour trip back to the ship gave us time to reflect on what had just happened.

Once we arrived back on the carrier the real fun began: the mishap investigation. Investigators discovered that the unrep ship had given us fuel contaminated with sea water. The H-2 burns fuel from the sump tank first and transfers the fuel from the auxiliary tanks and aft tank. Unknown to us, the contaminated fuel from the aux and aft tanks had slowly transferred to the sump tank, then to the engines. The system that indicates fuel quantity is in the sump tank as well, which accounted for the inaccurate fuel readings 20 minutes after takeoff.

The H-2 fuel system measures the density of the fuel. Since water is more dense than fuel, it produced a faulty, high reading.

The most conservative response would have been to land as soon as possible after we found the discrepancy in the fuel quantity.

Lt. Bounds is an H-2 pilot with HSL-84, following a tour as an instructor at HSL-31. At the time of the mishap he was attached to HSL-37.

31

It was a beautiful day to fly. We only had two hops scheduled, the weather was good and the helo was flying great. To top it off, I'd finish my flight in time to get some chow and see the movie. We were nearing the end of the cruise and could see the light at the end of the tunnel. In a few more weeks we'd be home. The first flight went great. We logged a few DLQs, started the hot-pump and turned the aircraft over to the next crew just before sunset. We ran down to the wardroom, ate and settled in for the movie.

"Emergency flight quarters! Emergency flight quarters!"

The call is not that unfamiliar to an H-2 pilot but it still puts your heart into overdrive. Our det's maintenance officer looked at me and said, "Probably a chip light." I went to CIC, anyway.

As I walked into CIC, the tactical actions officer(TAO) spotted me and shouted "What's Nr?"

"That's the main rotor's rpm," I replied. "Why?"

"They lost Nr and they're on their way back to the ship," he said.

"What do you mean?" I asked. "Is the main rotor slowing down or did they just lose the rpm indication in the cockpit?" The TAO and the ASAC (antisubmarine air controller) didn't know so I asked them to call the helo and find out. The det MO walked into the room in time to hear their reply: "We're down to 98 percent Nr and it's still decreasing." (Normal range is 102-106 percent Nr.)

"Try switching to emergency rpm," we both said at the same time. Of course they had already tried that with no luck. They were jettisoning stores and aft fuel. As the copilot called the Nr and altitude, the ASAC was calling their range. The helo was down to 94 percent Nr when the crew jettisoned aux tanks and aft fuel, which resulted in a 3-percent increase in Nr.

The ship was closing on the helo at max speed and intended to slow and turn into the wind when the helo reached three miles. At 23 miles from the ship the crew reported 92 percent Nr and the loss of the No.1 generator. CIC was a madhouse. I wracked my brain for a possible

cause of the emergency, but couldn't come up with anything. No time to sit down with the NATOPS and study the systems to solve the mystery. I felt utterly helpless when they reported 90 percent Nr and the No. 2 generator dropping off-line. Several seconds later the HAC broadcast that they were ditching. Disbelief and shock set in. How could this be happening? I had never heard of an H-2 simultaneously losing power on both engines before. The engines operate independently of each other.

CIC estimated their position at 8-12 miles from the ship when they ditched. The MO and I ran up to the bridge in hopes of spotting our buddies. It was pitch black by now so we briefed the captain and the OOD on what signals to look for. I then thought that the ship may not be monitoring guard.

I ran back down to CIC and asked if they were monitoring 243.0. I'm glad I asked. They put the frequency in and we immediately heard the HAC calling us. He told us exactly what we wanted to hear: everyone made it out of the helo OK.

A lookout spotted a strobe in the water, the OOD headed for it, but it turned out to be a fishing net marker. We fouled the screws. In the meantime, an H-3 launched from our friendly neighborhood aircraft carrier that was 70 miles away. When they reported that they had the aircrew in sight, we gave up on a small-boat recovery. The H-3 crew saved the day and made a flawless rescue. The H-2 crew was taken back to the carrier; we didn't see them for several days.

The MO and I spent the rest of the night writing and answering messages. So much for a relaxing evening. In the end, we determined that water in the fuel had been the culprit. There are so many checks when it comes to ship-board refueling of helicopters. We al-

ways visually examine a sample taken from the nozzle prior to taking any fuel. I didn't think that bad fuel was even a possibility. I learned later that there can be water in the fuel without visible signs. ◀

Lt. Romaine flew with HSL-37. He is currently the H-2 analyst for the Naval Safety Center.



What We Saw From the Ship (see preceding story)

By Lt. Paul Romaine





Mr. GEEDUNK[®]

(Sung to the tune of
"Mr. Touchdown")

Nelson Properties in
association with
BROWNSHOES
IN
ACTION COMIX
"The kind real aviators like"
By Lt. Ward Carroll

You know, I subscribe to *Wings of Gold*, *The Hook*, *Naval Aviation News*, *Approach* and *Proceedings* and I don't remember seeing anything about VF-3.14 in the Gulf War...



...Er, Good
afternoon sir.
This is the F-14
Tomcat...

Boy! The
F-15 guys
told me
to take as
much as I
wanted...

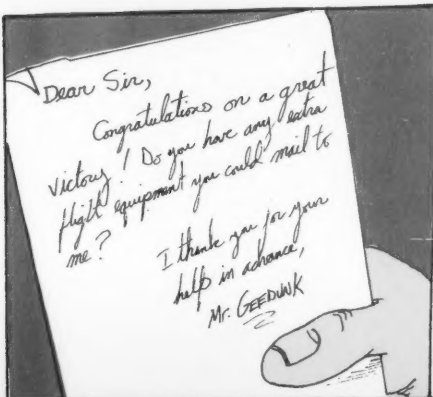
"They always call him Mr. Geedunk,
Living life vicariously,
He knows box scores, he knows stats,
By the way... got any hats?"

"They always call him Mr. Geedunk,
They always call him Mr. G.,
He will plead and he'll implore,
Give him stuff, he'll come back for more."



"They always call him Mr. Geedunk,
He's going to write you today,
So send some zappers (it's no crime),
To the Wannabe of all time,

Mr. GEEDUNK[®] U.S.A.!"



Dear Sir,

Congratulations on a great
victory. Do you have any extra
flight equipment you could mail to
me?

I thank you for your
help in advance,
Mr. GEEDUNK



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United States
Marine Corps
Aviation,
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